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Overview

Business Intelligence Reference Guide



Introduction

Business Intelligence is a **management term**. It involves the application of certain technologies and data that provide managers and leaders with a way to link business strategy and execution, or business performance management. All of this is aimed at enabling well informed and timely decisions.

The purpose of this reference guide is:

- To define the term Business Intelligence (BI) and present how it came to be.
- To provide a high-level overview of Business Intelligence.
- To provide factors and strategies that help to ensure a successful Army BI implementation.

The Enterprise Solution Competency Center (ESCC) has been established to provide the Army an in-house capability to assist decision makers and functional domain leadership with the complex landscape of business transformation through supporting information technology.

Evolution of Business Intelligence

Business Intelligence Age (2000 – Current)

- Powerful and integrated computer systems enable large amounts of data to be combined, filtered, and reshaped on-the-fly
- Access to real-time information
- Personalization of information
- Information in a business context
- Event-driven information delivery
- Predictive analysis

Business Intelligence becomes mainstream tool – enabling organizations to better understand and measure areas affecting its performance

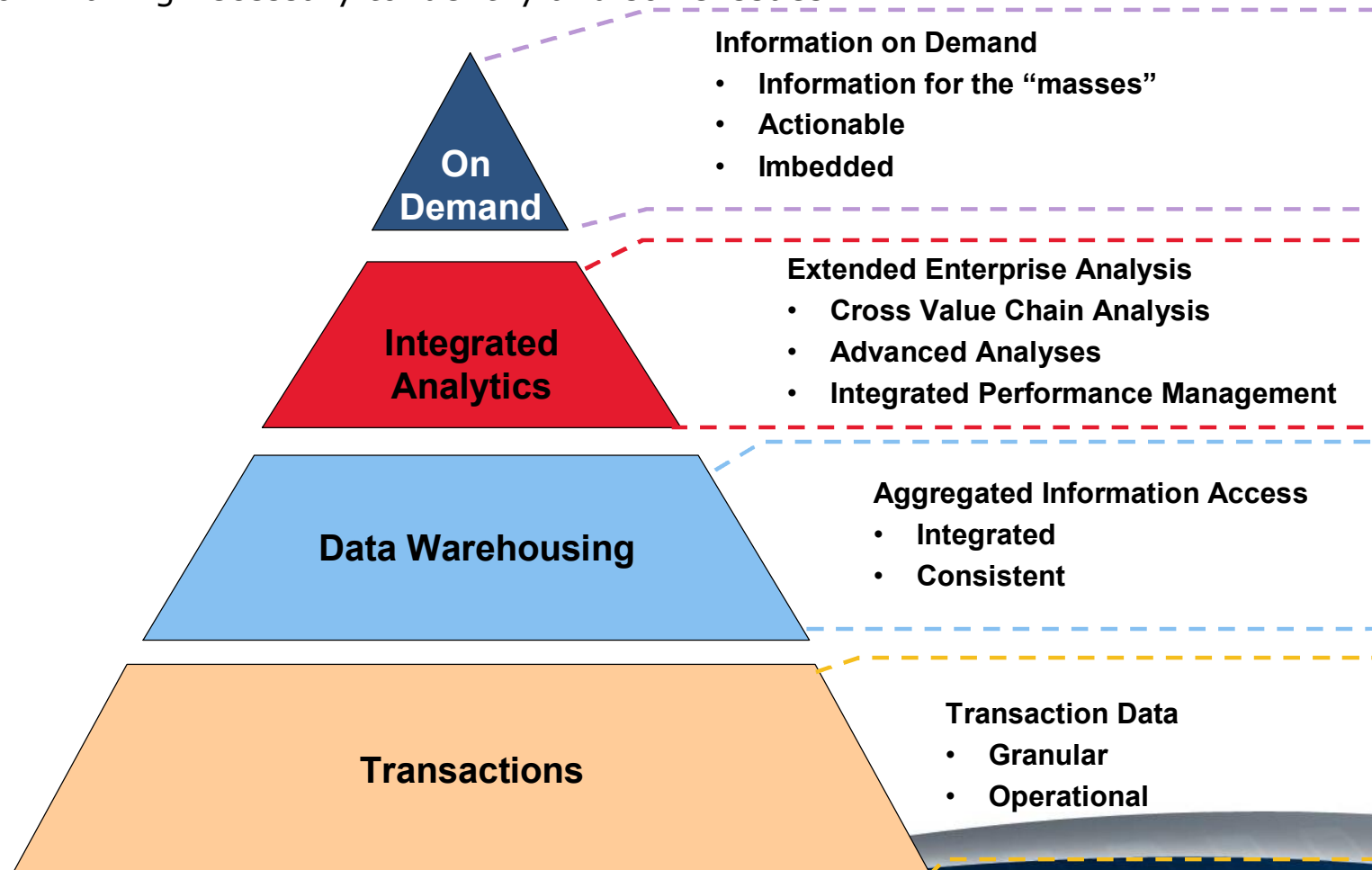
What is Business Intelligence?

Business intelligence is the process of gathering meaningful information that provides positive impact on business. An integral part of Business Intelligence is **Business Performance Management**. Performance Management is a continual process linking strategy and execution whose goal is to improve business effectiveness. In order to link strategy and execution together, high-quality and meaningful information about the business must be gathered and analyzed.



What is Business Intelligence?

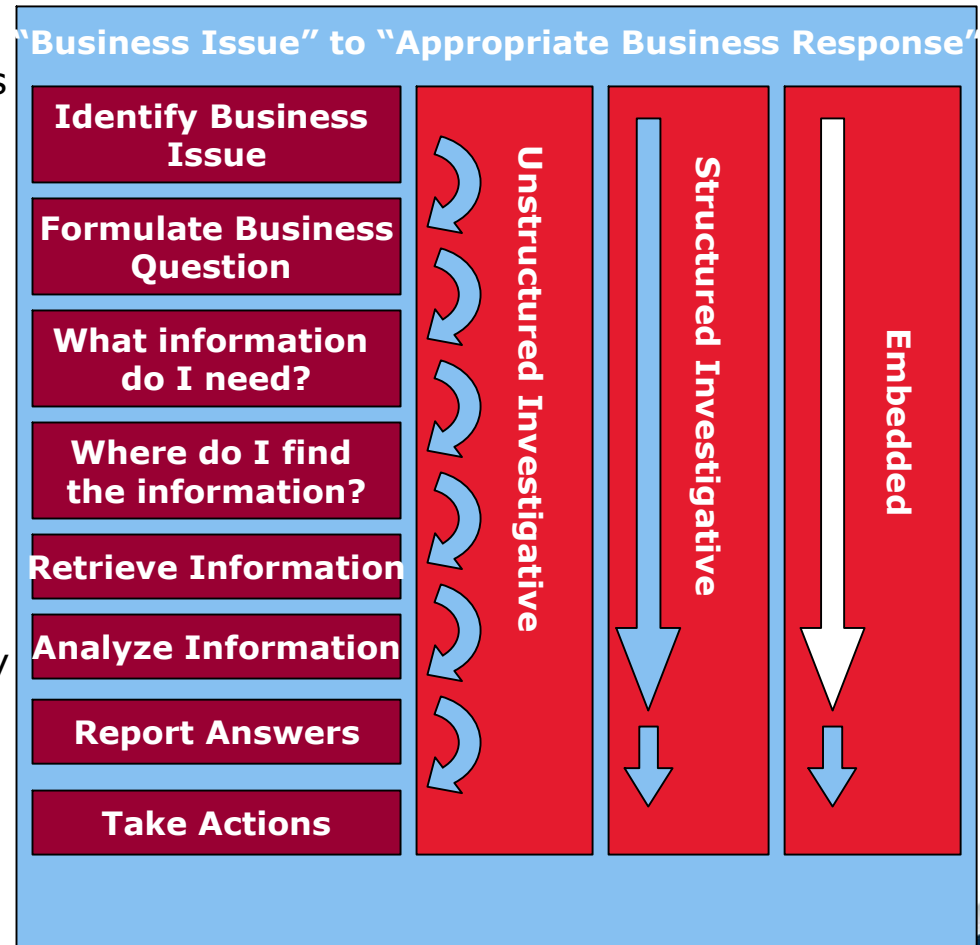
The following is a framework for developing business intelligence solutions that facilitate decision-making necessary to identify and solve issues



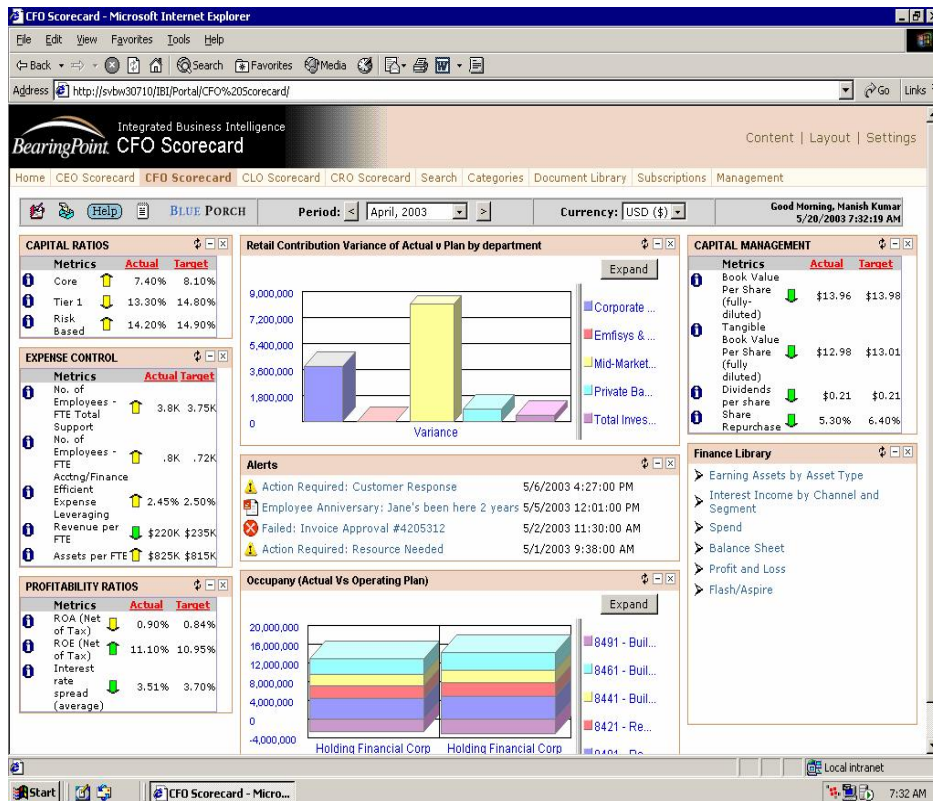
What is Business Intelligence?

Business Intelligence Delivery

1. **Unstructured Investigative** – Provides a robust database of business information to analysts seeking information to support infrequent and non-recurring business questions (modeling, mining, visualization).
2. **Structured Investigative** – Delivers structured sets of information on-demand to end-consumers to provide answers to recurring business questions (reporting, monitoring, scorecards).
3. **Embedded** – Intelligently “pushes” information directly to end-consumers by continuously monitoring on-going business performance against business objectives.



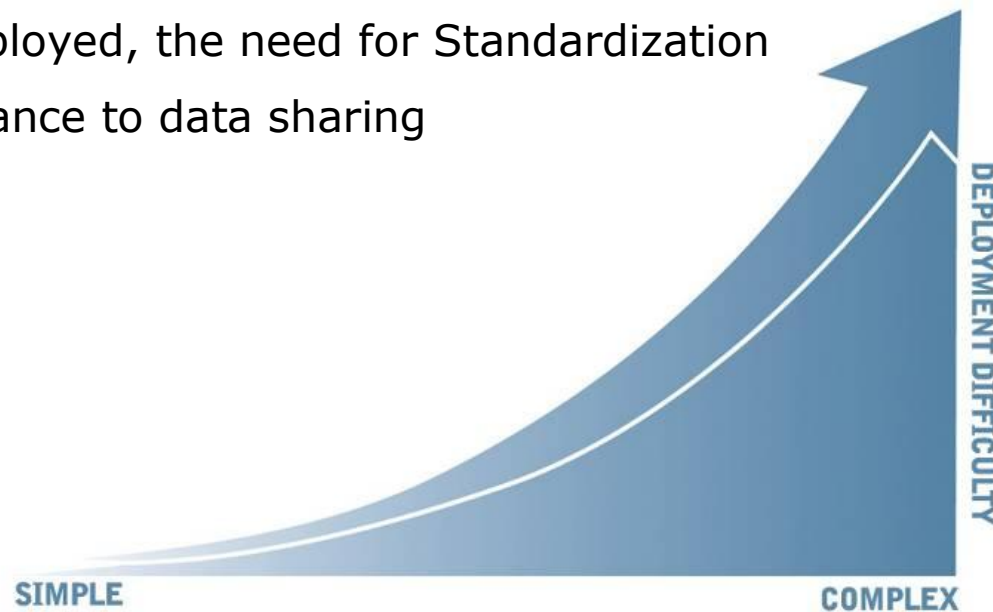
What is Business Intelligence?



- Unified Gateway for enterprise-wide information (financial and non-financial)
- Self-service and personalized
- Causal drill-down capability
- Modular implementation based on reusable objects
- Automated templates for budget development and collection
- Lights-out processing
- Links to market/competitor results
- Management alerts
- Role based information

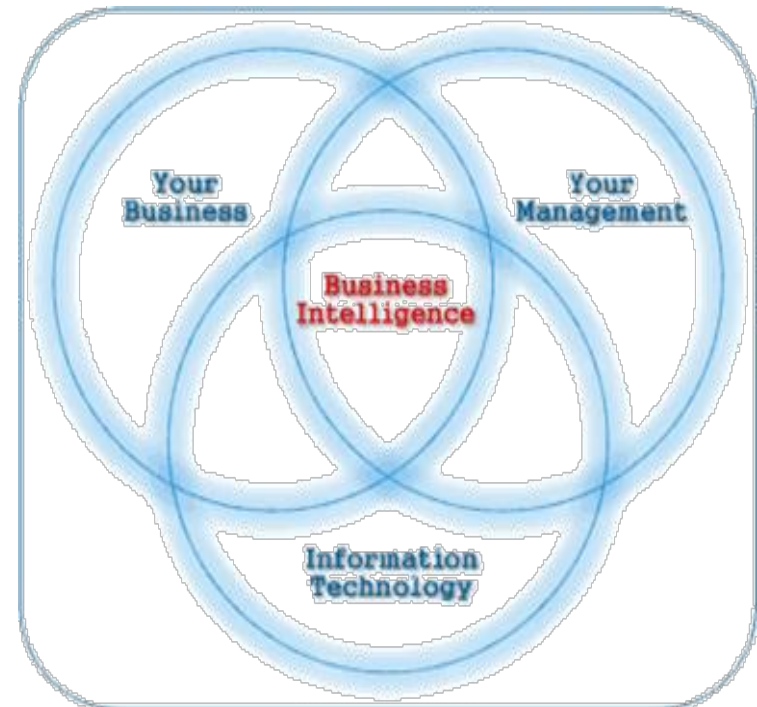
Key BI Challenges for Organizations

- Users with different needs
- Multiple redundant data sources
- Diverse platforms and security systems
- Global deployment
- Many solutions deployed, the need for Standardization
- Institutional resistance to data sharing



The Value of Business Intelligence

- **Integrated** - Views of data across clinical, operational, and financial systems
- **Strategic** - Forecasting capabilities linked to the budgeting and planning processes
- **Improve productivity** - Activity Based Costing (ABC) and KPI's
- **Insight** - Flexible rollups and charting to view information in new ways
- **Performance** - Drive organizational performance to strategic objectives
- **Quality** - Consistent data definitions and standard metrics across the organization



BI Methodology Overview



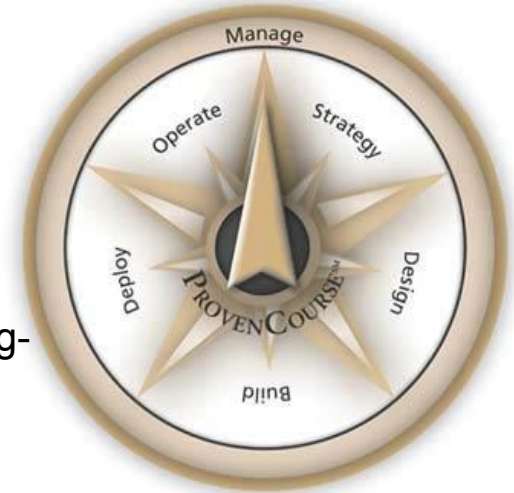
Take a long-term, strategic view of Business Intelligence, systems integration, and data management, but attack the problem with targeted, well-coordinated initiatives focused on delivering value rapidly.



Think Big – Develop a **BI roadmap** that supports your long-term objectives and ties in existing, related quick hits. This Roadmap is the compass that steers your systems integration and data management initiatives as you incrementally build the vision over time.

Start Small – Define and prioritize initiatives and carve out meaningful **phases** to deliver the highest value in the shortest amount of time. This builds on-going support and momentum in the organization. A proof-of-concept can be effectively structured around one of the earlier phases to gain confidence and internal support.

Deliver Quickly – Develop and execute the roadmap with 90–120 day projects, grouped into phases of no longer than 6 months. This methodology allows you to incrementally build toward the vision while providing interim benefits to the business along the way.



Tools

Dashboards

- A quick, easy, visual summary of business conditions and metrics. They project the status of key performance indicators at a high level.

Reporting

- An aggregated view of business data that allows management to stay aware of performance in specific areas of their business. Types of reports could include operational, financial and human resources.

Analytics

- Facilitates the manipulation of data in a very detailed and highly customized manner. This capability allows for the creation of ad-hoc queries, on-the-fly analysis, and data mining.

Metrics

- Provides feedback around both the internal business processes and external outcomes in order to continuously improve strategic performance and results.

Planning

- Enables integrated operational and financial planning in real time, for immediate visibility into resource requirements and future business results.

Where do we start?

There are 10 strategies that can help you plan and execute a business intelligence program.

- ❑ **Strategy # 1 - Understanding and Managing Operational Data**
- ❑ **Strategy # 2 - Right Information Architecture**
- ❑ **Strategy # 3 - Information Assurance**
- ❑ **Strategy # 4 - Metadata Management**
- ❑ **Strategy # 5 - Information Security**
- ❑ **Strategy # 6 - Master Data Management**
- ❑ **Strategy # 7 - Demand Management**
- ❑ **Strategy # 8 - Organizing People**
- ❑ **Strategy # 9 - Enabling Change and facilitating adoption**
- ❑ **Strategy # 10 - Measuring Value**

Reasons for Success

The enterprise has adopted the view that data is a corporate asset and initiated a combination, or all, of these data management programs:

Business Information Governance Programs

Governs standards and corporate requirements for data management.

Enterprise Information Strategy

Corporate level strategy to organize, structure, and leverage information assets.

Information Quality Program

Procedure to identify, fix and prevent data quality problems; inaccuracy and incompleteness.

Enterprise Data Warehouse

Central repository of enterprise data for reporting and analytical purposes.

BI/Data Competency Center

Core team to manage BI efforts across the enterprise.

Reasons for Failure - Flaws

- Lack of User Adoption
- Incomplete or inaccurate business requirements
- Disconnect between BI and performance management in the organization
- Lack of cooperation or collaboration between business and IT
- Lack of required business skills within the organization
- Insufficient funding to do it right
- Lack of required IT skills within the organization

Critical Success Factors

CSF # 1: High-level executive, financial, and IT involvement

Successful projects require senior (GO/SES) management to become involved in and provide support for the BI implementation.



Management must be willing to fully commit and support the BI transformation.

Critical Success Factors

CSF #2: Engaged end users

End Users need to become engaged in the project since they will become the main users of the system and are able to provide information on their current and future needs.



Always remember the sole purpose of BI is to aid the end user.

Critical Success Factors

CSF #3: Business and IT alignment

IT must support the needs of the business while the business must provide support for the needed IT projects that will enable the enterprise to become more efficient and effective.



Although BI serves a business purpose, technology is its backbone.

Critical Success Factors

CSF #4: Pervasive appreciation for value of data throughout the enterprise

All users must understand and appreciate the value of precise up-to-date data and its affects on the enterprise. Having a higher appreciation will result in greater likelihood of a successful BI implementation.



Recognizing the importance of data and making this pervasive throughout the organization is important to a successful BI implementation.

Critical Success Factors

CSF #5: Five key BI best practices, including enterprise-wide data quality and strategy

- Implement the 5 Key BI proven practices to ensure a greater likelihood of BI implementation success.
 1. Business Information Governance Programs
 2. Enterprise Information Strategy
 3. Information Quality Program
 4. Enterprise Data Warehouse
 5. Organizational Competency Center (Army ESCC)
- Ensure data entering into the BI system is “high quality” and “clean” to have data output that is correct and relevant to the business.



Creating a BI implementation strategy plan that incorporates the five key BI proven practices *before* the start of the project, greatly increases the probability of success.

Critical Success Factors

CSF #6: A Competency Center (Army ESCC) is core to BI success. Its role is to “champion the BI technologies and define standards. It focuses on business-alignment, project prioritization, and resolving management and skills issues associated with significant BI projects.”

It is necessary to have a Competency Center to continue the development and maintenance of the BI system. The CC will also help make the BI system pervasive throughout the organization.



The CC will help ensure that you are able to achieve full return on investment on your BI implementation.

Critical Success Factors

CSF #7: Have a continuous improvement mentality in order to realize and achieve the full business value of having a BI solution.

Implementing a BI solution is only the beginning of a process to have it become pervasive throughout the organization. This will ensure that the full business value will be achieved by allowing all management employees access to the system.



Having a continuous improvement mentality is necessary in making BI pervasive throughout the enterprise.